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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,086	12/28/2001	Mehmet Yavuz	13667RRUS01U	2205
42640	7590	03/07/2006	EXAMINER	
DILLON & YUDELL LLP 8911 NORTH CAPITAL OF TEXAS HWY SUITE 2110 AUSTIN, TX 78759			PHUNKULH, BOB A	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,086

Applicant(s)

YAVUZ ET AL.

Examiner

Bob A. Phunkulh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-15 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-14, 18-20 is/are rejected.
- 7) ☒ Claim(s) 5, 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/19/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to applicant's 02/21/2006 amendment(s)/response(s) in the application of **YAVUZ et al.** for "**ADAPTIVE DATA RATE CONTROL FOR MOBILE DATA TRANSFER**" filed 12/29/2001. The amendments/response to the claims have been entered. Claims 6-7, 16-17 have been canceled. No claims have been added. Claims 1-5, 8-15, 18-20 are now pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 8-14, 18-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 7-14, 16-20 of copending Application No. 10/186,787. Although the conflicting claims are not identical, they are not patentably distinct from each other because elimination of an

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element and its function provides no patentable difference. Claims 1-4, 8-14, 18-20 are encompassed by claims 1-4, 7-14, 16-20 copending Application No. 10/186,787. It is well settled that elimination of elements and their function is considered to be obvious to one of ordinary skill in the art. *In re Karlson*, 453 USPQ 184 (CCPA 1963).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-14, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Sinduhushayana* in view of *Cheng et al.* (US 6,791,954), hereinafter *Cheng*.

Regarding claims 1, 8, 11 and 18, *Sinduhushayana* discloses a method applicable within a mobile communication system for adaptively allocating a downlink data rate to an access terminal to compensate for channel fading, the method comprising:

selecting a downlink data rate in accordance with a determined signal-to-noise level, wherein the downlink data rate is associated with a specified signal-to-noise

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threshold to achieve a specified packet error rate (the data rate is selected to maintain targeted packet error rate (PER), see abstract);

transmitting a packet to an access terminal at the selected downlink data rate;
and

responsive to successfully decoding the packet, decreasing the signal-to-noise threshold specified for the selected downlink data rate (the AT maintains a look up table, which comprises a set of SINR thresholds that represent a minimum SINR necessary to successfully decode a packet at each data rate. The AT uses the adjusted set of SINR thresholds in the look up table to select the highest data rate, the SINR threshold of which is below the predicted SINR, see abstract).

Sinduhushayana fails to disclose adjusting the signal-to-noise ratio for said selected downlink data rate comprises: computing an increased signal-to-noise threshold specified for said selected downlink data rate in accordance with the relation: $T = T_j + \Delta_{local}$ wherein $T ((E_b/N_{nT})(n))$ represents the increased signal-to-noise threshold associated with the selected downlink data rate, $T_j ((E_b/N_{nT})(n-1))$ represents the current signal-to-noise threshold value associated with the selected downlink data rate, and $\Delta_{local} (\text{sign}(\delta)\eta_{up}(\delta)\Delta_{SER})$ represents a local data rate control delta value.

Cheng, on the other hand, discloses increasing the signal-to-noise ratio according to equation 3 if the communication quality is unacceptable (see col. 6 lines 1-17).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made include the teaching of *Cheng* in the system taught by *Sinduhushayana* in order to improve the communication quality.

Regarding claims 2, 12, *Sinduhushayana* discloses determined signal-to-noise level at the access terminal is a ratio of the signal strength of an allocated access terminal channel to the combined external signal strength (the SIR is determined at terminal 202, see figure 2 and col. 4 lines 59 to col. 5 line 5).

Regarding claims 3, 13, *Sinduhushayana* discloses the selecting a downlink data rate is preceded by determining a signal-to-noise level at the access terminal (the SIR is determined at terminal 202, see figure 2 and col. 4 lines 59 to col. 5 line 5).

Regarding claims 4, 14, *Sinduhushayana* the selecting a downlink data rate further comprises: comparing the determined signal-to-noise level with a plurality of signal-to-noise threshold values, wherein each of the plurality of signal-to-noise threshold values is associated with a downlink data rate; and selecting a highest downlink data rate corresponding to one of the plurality of signal-to-noise threshold values that does not exceed the determined signal-to-noise level (the AT maintains a look up table, which comprises a set of SINR thresholds that represent a minimum

SINR necessary to successfully decode a packet at each data rate, see abstract).

Regarding claims 9-10, 19-20, *Sinduhushayana* fails to disclose adjusting the signal-to-noise ratio for said selected downlink data rate comprises: computing decreased signal-to-noise threshold (see claim 1 or 11 rejection above for other limitations).

Cheng, on the other hand, discloses decreasing the signal-to-noise ratio according to equation 3 if the communication quality is unacceptable (see col. 6 lines 31-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made include the teaching of *Cheng* in the system taught by *Sinduhushayana* in order to improve the communication throughput.

Allowable Subject Matter

Claims 5, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

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The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

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220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Wellington Chin**, can be reach on **(571) 272-3134**. The fax phone number for this group is **(571) 273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bob A. Phunkulh
Primary Examiner
TC 2600
Technology Division 2616
March 02, 2006

BOB PHUNKULH
PRIMARY EXAMINER